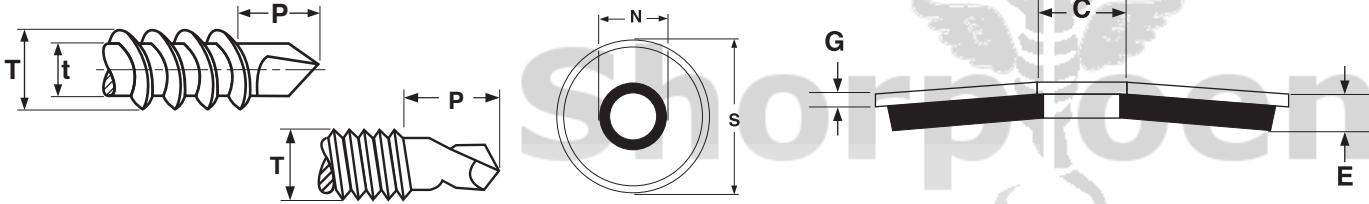


# SELF- TAPPING SCREWS

## SELF-DRILLING With Neo-EPDM Washers



SELF-DRILLING SCREWS, TYPE BSD										SAE J78-2013			
Nominal Size or Basic Screw Diameter	Threads Per Inch	T		t		P		Minimum Practical Nominal Screw Lengths, Formed Points				Minimum Torsional Strength, lb.- in. (STEEL SCREWS ONLY)	
		Major Diameter		Minor Diameter		Protrusion Allowance		90° Head, #2 Pt		Csk Head, #3 Pt			
		Max	Min	Max	Min	#2 Pt.	#3 Pt.	90° Head, #2 Pt	Csk Head, #2 Pt	90° Head, #3 Pt	Csk Head, #3 Pt		
8	.1640	18	.166	.161	.122	.116	.211	.251	3/8	7/16	7/16	1/2	42
10	.1900	16	.189	.183	.141	.135	.235	.300	7/16	1/2	1/2	9/16	61
12	.2160	14	.215	.209	.164	.157	.283	.353	1/2	5/8	1/2	5/8	92
12	.2160	24	.216	.2094	-	-	.223	.293	1/2	5/8	1/2	5/8	100
1/4	.2500	14	.246	.240	.192	.185	.318	.393	1/2	5/8	1/2	5/8	150

Coarse Thread Self Drilling Screws - 5/16 & 3/8 Diameters, #3 Point											
Nominal Size or Basic Screw Diameter	Threads Per Inch	T		t		A		B			
		Major Diameter		Minor Diameter		Drill Point Length		Drill Point Diameter			
		Max	Min	Max	Min	Max	Min	Max	Min		
5/16	.3125	12	.315	.307	.272	.263	.421	.361	.270	.265	
3/8	.3750	12	.380	.370	.308	.298	.354	.314	.338	.330	

NEO-EPDM WASHERS USED WITH SELF PIERCING & SELF DRILLING SCREWS								
For Use with Screw of this Nominal Diameter	S		N		G		E	
	Outside Diameter of Steel Section		Inside Diameter of Steel Section		Thickness of Steel Section		Total Thickness (EPDM & Steel)	
	Max	Min	Max	Min	Max	Min	Max	Min
8	.507	.491	.212	.196	.039	.023	.125	.093
10	.507	.491	.212	.196	.039	.023	.125	.093
12	.558	.542	.243	.227	.039	.023	.125	.093
14 or 1/4	.617	.601	.275	.259	.039	.023	.125	.093
5/16	.750	.720	.345	.315	.040	.032	.116	.086
3/8	.750	.720	.449	.419	.040	.032	.110	.080

<b>Description</b>	A hex washer head tapping screw with spaced threads and a drill point which drills its own hole. Beneath the head is a thin conically-shaped circular steel washer, bonded to a similarly shaped rubber-like piece which as a slightly smaller outside and inside diameter. When these washers are assembled (rubber side down) to self-piercing or self-drilling screws, those fasteners become "sealing screws".
<b>Applications/ Advantages</b>	When properly assembled, this washer: (a) offers protection against leakage; (b) provides load bearing qualities superior to that of a regular flat washer; (c) reduces the chance of the fastening becoming loose due to vibration; (d) minimizes damage to the mating surface caused by contact with a steel washer. Sealing screws may be used to attach roofing or metal walls to steel frames. Consult a self-drilling screw selection chart for the correct size.
<b>Material</b>	<i>Screw:</i> AISI 1016-1024 or equivalent steel; <i>Steel Section of washer:</i> 20 gauge steel; <i>Elastic Section of washer:</i> Style 40 EPDM sheet
<b>Heat Treatment</b>	Screws shall be quenched in liquid and then tempered by reheating to 625°F minimum.
<b>Case Hardness</b>	<i>Screw:</i> Rockwell C52 -58 <i>Washer:</i> EPDM <i>Material:</i> Shore A 65 - 75 (Durometer scale)
<b>Case Depth of Screw</b>	<i>No. 4 and 6 diameter:</i> .002 - .007 <i>No. 8 thru 12 diameter:</i> .004 - .009 <i>1/4" diameter and larger:</i> .005 - .011
<b>Core Hardness of Screw</b>	Rockwell C32 - 40 (after tempering)
<b>Plating</b>	See Appendix-A for plating information.